

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (Currently Amended) An implantable medical device for the treatment of cancer abnormal tissue growth in a patient's body comprising:

a ~~hermetically-sealed device housing;~~

a ~~battery contained within said hermetically-sealed device housing~~ power source;

~~circuitry contained within said hermetically-sealed device housing wherein said~~
~~circuitry is coupled to said~~ power source battery; and

at least one electrode operably coupled to said circuitry wherein said circuitry delivers direct current electrical therapy to said at least one electrode continuously for a period of time not less than 1 minute for the treatment of ~~cancerous tumors~~ abnormal tissue growths[[.]]; and

a catheter operatively associated with the at least one electrode and implanted into the patient's body and into contact with the abnormal tissue growth.
2. (Original) The device of claim 1 wherein said direct current electrical therapy involves the use of multiple voltages.
3. (Original) The device of claim 1 wherein said direct current electrical therapy is applied at a voltage for a time period of between 1 minute and 1 day.

4. (Original) The device of claim 1 wherein said direct current electrical therapy is applied at a voltage for a time period of between 1 hour and 1 week.

5. (Original) The device of claim 1 wherein said direct current electrical therapy is applied at a voltage for a time period of between 1 and 120 minutes.

6. (Original) The device of claim 1 wherein said device monitors at least one voltage from within tissue.

7. (Original) The device of claim 6 wherein said direct current electrical therapy is adjusted according to the sensed tissue voltage.

8. (Original) The device of claim 7 wherein said direct current electrical therapy is applied for a time period between 1 hour and 1 month.

9. (Currently Amended) The device of claim 1 wherein said direct current electrical therapy alternates between positive and negative voltages at periodic intervals of at least about one hour to avoid corrosion of the at least one electrode.

10. (Original) The device of claim 1 further comprising an electrical port contact coupled to said device in order to receive externally generated electrical therapies.

Claims 11 through 18 (canceled)

19. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied at a voltage between 1 volt and 20 volts.

20. (Canceled)

21. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied at voltages and time periods sufficient for changing the pH by at least 2.0 inside or around said tumor ~~or~~ abnormal tissue growth.

22. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied at a voltage between 20mV and 500mV.

23. (Canceled)

24. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied at voltages and time periods sufficient to attract white blood cells.

25. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied at a voltage between 100mV and 10 50 volts.

26. (Canceled)

27. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied as a series of voltage pulses between 20 and 900 volts.

28. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied as a series of voltage pulses wherein said voltage pulses have a pulse width of between 100 μ s and 20 ms.

29. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied as a series of voltage pulses wherein said voltage pulses have a spacing period of between 100 μ s and 1 second.

30. (Original) The device of claim 29 wherein said voltage pulses number between 1 and 10,000.

31. (Currently Amended) The device of claim 17 1 wherein said direct current electrical therapy is applied at voltages and pulse widths sufficient to force open tumor cell membranes.

32. (Currently Amended) The device of claim 17 1 wherein said device monitors at

least one voltage from within tissue.

33. (Original) The device of claim 32 wherein said direct current electrical therapy is adjusted according to the sensed tissue voltage.

34. (Currently Amended) The device of claim 33 wherein said direct current electrical therapy is applied at voltages between ~~20mV~~ 1V and ~~500mV~~ 500V.

35. (Currently Amended) The device of claim 34 wherein said direct current electrical therapy is applied for a time period between 10 minutes to 1 hour and ~~1 month~~.

36. (Canceled)

37. (Currently Amended) The device of claim ~~17~~ 1 further comprising an electrical port contact coupled to said device in order to receive externally generated electrical therapies.

38. (Currently Amended) The device of claim ~~17~~ 1 further comprising any of the group consisting of a drug reservoir, a drug pump, a communication means to synchronize said direct current electrical therapy with a drug delivery system, and circuitry to alternate output polarities to reduce levels of electrode corrosion and degradation.

39. (New) The device of claim 1, wherein the electrode is internally connected to the catheter.

40. (New) The device of claim 1, wherein the electrode is externally connected to the catheter and the catheter is configured to deliver a therapeutic agent.

41. (New) The device of claim 40, wherein the catheter is configured to contact multiple portions of the abnormal tissue growth.

42. (New) The device of claim 1, further comprising a porous material in contact with the abnormal tissue growth, wherein the catheter is configured to deliver a therapeutic agent

to the abnormal tissue growth and the porous material is configured to spread the therapeutic agent across the abnormal tissue growth.

43. (New) The device of claim 2, wherein the catheter is coupled to an electrode array and configured to deliver a therapeutic agent to the abnormal tissue growth, wherein the electrode array is configured to steer the therapeutic agent along a predetermined path.